AMENDMENTS TO THE SPECIFICATION

Please amend paragraph **[0050]** as follows.

[0050] Fig. 6A shows an integrated probe card 600 in accordance with an embodiment of the invention. Probe card 600 includes a substrate 610, conductive traces 620, and probe tips 630. Substrate 610, which can be a printed circuit board, is made of an insulating material on and through which conductive traces 620 run. As illustrated, conductive traces 620 electrically connect probe tips 630 to vias 640 that lead to electrical contacts (not shown) on the side of substrate 610 that connects to a probe head. Probe tips ~~620~~ 630, as shown in greater detail in Fig. 6B, can be carefully formed as flat-topped metal bumps or pillars on pad portions of conductive traces 620. Alternatively, the pad portions of conductive traces 620 can function as probe tips as described above. In either case, the probe tips provide flat non-compliant surfaces that can be used during wafer probing to improve the planarity of the device terminals.

Please amend paragraph **[0052]** as follows.

[0052] Fig. 7A shows a probe card 700 in accordance with an embodiment of the invention that facilitates rapid changes or replacement of the probe tips to minimize test equipment downtime. Probe card 700 includes a first substrate 710, a receptacle 750, and a second substrate 760. Substrate 760 fits in or plugs into receptacle 750 and has affixed probe tips 730. Receptacle 750 is mounted on substrate 710, and when substrate 760 is in receptacle 750 conductive traces 720 in and on substrate 710 electrically connect substrate 760 to vias 740 leading to the electrical connections (not shown) for the test head. Accordingly, probe tips 730 electrically connect to the test equipment through substrate 760, receptacle 750, conductive traces 720, vias 740, and electrical ~~contact~~ contacts (not shown) on the back of substrate 710.

Please amend paragraph **[0063]** as follows.

[0063] Fig. 9D shows another exemplary embodiment of the invention including a semiconductor probe device ~~915~~ 912. Probe device ~~915~~ 912 differs from probe device 900 of

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Fig. 9A in that electrical terminals ~~934~~ of probe device ~~915~~ 912 are on a bottom surface of probe device ~~915~~ 912. More specifically, probe device ~~915~~ 912 includes contact pads 920 and probe tips 930 on a top surface. Conductive vias 934, which are connected to contact pads 920, pass through the semiconductor die and electrically connect contact pads 920 to respective contact pads 926 on the bottom surface of probe device ~~915~~ 912.

Please amend paragraph **[0064]** as follows.

[0064] One process for fabricating probe device ~~915~~ 912 performs laser drilling, directional etching such as deep ion etching, or any high aspect ratio etching process to form holes through a semiconductor die in the areas of contacts 920. The holes can then be filled with a conductive fill material such as aluminum, copper, tungsten, or a conductive epoxy. Alternatively, vias 934 may be formed through deep ion implantations or other doping processes. Contact pads 920 and probe tips 930 can then be formed at the top of conductive vias 934, and contact pads 926 and terminals 936 can then be formed at the bottom of conductive vias 934. Contact pads 920 generally have the same pattern as contact pads 926 and the contact pads on the devices to be tested. Similarly, probe tips 930 and terminals 936 can be formed using similar bumping processes.

Please amend paragraph **[0065]** as follows.

[0065] A receptacle 944 holds probe device ~~915~~ 912 in place with terminals 936 in contact with matching contact pads (not shown) on a probe card 954. Preferably, receptacle 944 is such that semiconductor probe device ~~915~~ 912 can be removed and replaced when damaged or when reconfiguring test equipment to test a different type of device.

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